

constitutes a rare exception to the general principle, long recognized by the Commission, that the cost-causer should pay for the costs that he or she incurs.

132. Our interpretation suggests that a "competitively neutral" cost recovery mechanism should satisfy the following two criteria. First, a "competitively neutral" cost recovery mechanism should not give one service provider an appreciable, incremental cost advantage over another service provider, when competing for a specific subscriber. In other words, the recovery mechanism should not have a disparate effect on the incremental costs of competing carriers seeking to serve the same customer. The cost of number portability borne by a facilities-based new entrant that wins a customer away from an incumbent LEC is the payment that the new entrant must make to the incumbent LEC. The higher this payment, the higher the price the new entrant must charge to a customer to serve that customer profitably, which will put the new entrant at a competitive disadvantage.³⁷⁸ We thus interpret our first criterion as meaning that the incremental payment made by a new entrant for winning a customer that ports his number cannot put the new entrant at an appreciable cost disadvantage relative to any other carrier that could serve that customer.

133. An example illustrates the application of this criteria. When a facilities-based carrier that competes against an incumbent LEC for a customer, the incumbent LEC incurs no cost of number portability if it retains the customer. If the facilities-based carrier wins the customer, an incremental cost of number portability is generated. The share of this incremental cost borne by the new entrant that wins the customer cannot be so high as to put it at an appreciable cost disadvantage relative to the cost the incumbent LEC would incur if it retained the customer. Thus, the incremental payment by the new entrant if it wins a customer would have to be close to zero, to approximate the incremental number portability cost borne by the incumbent LEC if it retains the customer.³⁷⁹

³⁷⁸ We recognize that the incumbent LEC and new entrant, when competing for a customer, will take into account not only the incremental cost of winning the customer, but also the incremental cost of losing a customer. The cost to an incumbent LEC of losing a customer who ports his or her number to a new entrant is the incremental cost of porting that number to the new entrant, less any payments made by the new entrant to the incumbent LEC. In theory, the higher the incremental costs of losing customers, the greater the incentive an incumbent LEC would have to offer a customer a low price to prevent a customer from porting his or her number, which would allow the incumbent LEC to avoid the number portability cost. For the interim period, however, we expect that the number of customers that will port their number will be small relative to the total number of customers an incumbent LEC serves. Since incumbent LECs offer local service on a tariffed basis to all customers, the incentive for an incumbent LEC to lower its price to all customers in order to avoid the cost of porting a small number of numbers will be small enough to be inconsequential in determining the incumbent LEC's price.

³⁷⁹ Carriers taking unbundled elements or reselling services do not generate a cost of number portability. Thus, a low incremental payment by a facilities-based carrier is necessary in order not to disadvantage it relative to such resellers.

134. A couple of additional examples may further clarify and illustrate this criterion. On the one hand, a cost recovery mechanism that imposes the entire incremental cost of currently available number portability on a facilities-based new entrant would violate this criterion. This cost recovery mechanism would impose an incremental cost on a facilities-based entrant that neither the incumbent, nor an entrant that merely resold the incumbent's service, would have to bear, because neither the incumbent nor the reseller would have to use currently available number portability measures in order for the prospective customer to keep his or her existing number. On the other hand, a cost recovery mechanism that recovers the cost of currently available number portability through a uniform assessment on the revenues of all telecommunications carriers, less any charges paid to other carriers, would satisfy this criterion.³⁸⁰ This approach does not disparately affect the incremental cost of winning a specific customer or group of customers, because a LEC with a small share of the market's revenue would pay a percentage of the incremental cost of number portability that will be small enough to have no appreciable affect on the new entrant's ability to compete for that customer.

135. The second criterion for a "competitively neutral" cost recovery mechanism is that it should not have a disparate effect on the ability of competing service providers to earn normal returns on their investment. If, for example, the total costs of currently available number portability are to be divided equally among four competing local exchange carriers, including both the incumbent LEC and three new entrants, within a specific service area, the new entrant's share of the cost may be so large, relative to its expected profits, that the entrant would decide not to enter the market. In contrast, recovering the costs of currently available number portability from all carriers based on each local exchange carrier's relative number of active telephone numbers would not violate this criterion, since the amount to be recovered from each carrier would increase with the carrier's size, measured in terms of active telephone numbers or some other measure of carrier size. In addition, allocating currently available number portability costs based on active telephone numbers results in approximately equal per-customer costs to each carrier. We also believe that assessing costs on a per-telephone number basis should give no carrier an advantage, relative to its competitors. An alternative mechanism that would also satisfy our competitive neutrality requirement would be to recover currently available number portability costs from all carriers, including local exchange, interexchange, and CMRS carriers, based on their relative number of presubscribed customers.

³⁸⁰ If a state adopts this cost recovery mechanism, we require that a state's calculation of gross revenues for IXC's should include only those revenues generated in the state in which the charges are being assessed, on both an interstate and intrastate basis. This ensures that a carrier's bill reflects the level of its activities in a particular state and will prevent a carrier's being charged several times on the same revenues. Cf. Assessment and Collection of Regulatory Fees for Fiscal Year 1995, Price Cap Treatment of Regulatory Fees Imposed by Section 9 of the Act, Report and Order, 10 FCC Rcd 13512, 13558-59 (1995) (adopting gross revenues less carrier charges for recovering regulatory fees).

136. We conclude that a variety of approaches currently in use today essentially comply with our competitive neutrality criteria. One example is the formula voluntarily being used by carriers in Rochester, NY, and adopted by the NY DPS in the New York metropolitan area.³⁸¹ Specifically, this mechanism allocates the incremental costs of currently available number portability measures, through an annual surcharge assessed by the incumbent LEC from which the number is transferred. This surcharge is based on each carrier's number of ported telephone numbers relative to the total number of active telephone numbers in the local service area.³⁸² Similarly, as noted above, a cost recovery mechanism that allocates number portability costs based on a carrier's number of active telephone numbers (or lines) relative to the total number of active telephone numbers (or lines) in a service area would also satisfy the two criteria for competitive neutrality. As noted above, MFS in Illinois plans to seek regulatory approval for a similar formula that would allocate the costs of currently available measures between it and Ameritech based on each carrier's gross telecommunications revenues net of charges to other carriers.³⁸³ A third competitively neutral cost recovery mechanism would be to assess a uniform percentage assessment on a carrier's gross revenues less charges paid to other carriers.³⁸⁴ Finally, we believe that a mechanism that requires each carrier to pay for its own costs of currently available number portability measures would also be permissible.

137. The cost recovery mechanisms described in the preceding paragraphs define payments made by new entrants to incumbent LECs for providing number portability. We recognize that incumbent LECs must make payments to new entrants if the incumbent LEC wins a customer of the new entrant that wants to port its number. To be competitively neutral, the incumbent LEC would have a reciprocal compensation arrangement with each new entrant. That is, the incumbent LEC would pay to the new

³⁸¹ NYNEX March 22, 1996 Ex Parte Filing.

³⁸² The formula as filed in the NYNEX tariff is:

$$\frac{\text{Total Ported Minutes} \times (\text{Switching} + \text{Transport Costs})}{\text{Total Working Telephone Numbers (TNs) Provided by the Telephone Company}} = \text{Charge per Working TN}$$

$$\text{Charge per Working TN} \times \text{Number of Ported TNs Used by the CLEC} = \text{Charge per CLEC}$$

NYNEX March 22, 1996 Ex Parte Filing.

³⁸³ The formula proposed by MFS is:

$$\$3 \text{ (Incremental Costs of Number Portability in Illinois)} \times \text{Market share based on gross telecommunications revenues net of payments to other carriers.}$$

MFS White Paper, 1996 at 6, 12.

³⁸⁴ Cf. Assessment and Collection of Regulatory Fees for Fiscal Year 1995, Price Cap Treatment of Regulatory Fees Imposed by Section 9 of the Act, Report and Order, 10 FCC Rcd 13512, 13558-59 (1995) (adopting gross revenues less carrier charges for recovering regulatory fees).

entrant a rate for number portability that was equal to the rate that the new entrant pays the incumbent LEC.

138. In contrast, requiring the new entrants to bear all of the costs, measured on the basis of incremental costs of currently available number portability methods, would not comply with the statutory requirements of section 251(e)(2). Imposing the full incremental cost of number portability solely on new entrants would contravene the statutory mandate that all carriers share the cost of number portability. Moreover, as discussed above, incremental cost-based charges would not meet the first criterion for "competitive neutrality" because a new facilities-based carrier would be placed at an appreciable, incremental cost disadvantage relative to another service provider, when competing for the same customer. Rates for interim number portability would also not meet the second criterion if they approximate the retail price of local service. New entrants may effectively be precluded from entering the local exchange market if they are required to bear all the costs of currently available number portability measures.³⁸⁵ Retail rates for call forwarding, to the extent they are set above incremental costs, would also not meet the principles of competitive neutrality for the same reasons that incremental cost-based rates would not. Finally, placing the full cost burden of number portability on new entrants would also deter customers of incumbent carriers from transferring to a new service provider to the extent that the entrant passes on the cost of currently available number portability, in the form of higher prices for customers. In addition, if incumbent LECs were not required to bear a portion of the incremental costs of currently available number portability measures, they would have an incentive to delay implementation of a long-term number portability method.

139. A carrier has a number of options for seeking relief if it believes that the pricing provisions for number portability offered by a LEC violate the statutory standard in section 251(e)(2), the rules we set forth in this order, or state-mandated cost recovery mechanisms. First, it may bring action against the carrier in federal district court pursuant to section 207 for damages or file a section 208 complaint against another carrier alleging a violation of the Act or the Commission's rules.³⁸⁶ Alternatively, the carrier may file a request for declaratory ruling with the Commission, seeking our view on whether the statute and our rules have been properly applied.³⁸⁷ Finally, carriers in many instances will be able to pursue existing avenues before their state commission if a dispute arises regarding recovery of currently available number portability costs.

³⁸⁵ See NYNEX March 22, 1996 Ex Parte Filing. NYNEX reports switching and transport costs of interim number portability of \$0.01 per minute, and charges of \$0.106 for a five minute local call during business hours, the period with the highest rates. The charge of \$0.106 results from retail charges of \$0.08 for the first three minutes and \$0.013 per additional minute, as determined from its local tariffs on file with the NY PSC.

³⁸⁶ See 47 U.S.C. § 252(e)(6).

³⁸⁷ We will be initiating a proceeding to adopt expedited procedures regarding such complaints.

140. Finally, in response to questions concerning the appropriate treatment of terminating access charges in the interim number portability context, we conclude that the meet-point billing arrangements between neighboring incumbent LECs provide the appropriate model for the proper access billing arrangement for interim number portability. We decline to require that all of the terminating interstate access charges paid by IXCs on calls forwarded as a result of RCF or other comparable number portability measures be paid to the competing local service provider. On the other hand, we believe that to permit incumbent LECs to retain all terminating access charges would be equally inappropriate. Neither the forwarding carrier, nor the terminating carrier, provides all the facilities when a call is ported to the other carrier. Therefore, we direct forwarding carriers and terminating carriers to assess on IXCs charges for terminating access through meet-point billing arrangements. The overarching principle is that the carriers are to share in the access revenues received for a ported call. It is up to the carriers whether they each issue a bill for access on a ported call, or whether one of them issues a bill to the IXCs covering all of the transferred calls and shares the correct portion of the revenues with the other carriers involved. If the terminating carrier is unable to identify the particular IXC carrying a forwarded call for purposes of assessing access charges, the forwarding carrier shall provide the terminating carrier with the necessary information to permit the terminating carrier to issue a bill. This may include sharing percentage interstate usage (PIU) data and may require the terminating entity to issue a bill based on allocated interstate minutes per IXC as derived from data provided by the forwarding carrier.

G. Number Portability by CMRS Providers

1. Background

141. In our Notice, we sought comment and other information on the competitive significance of service provider portability for the development of competition between CMRS and wireline service providers.³⁸⁸ We also sought comment on the current, and estimated future, demand of commercial mobile radio service customers for portable wireless telephone numbers when they change their service provider either to another CMRS provider or to a wireline service provider.³⁸⁹ Finally, we sought comment on whether the burdens of implementing service provider portability (1) between CMRS carriers, and (2) between CMRS and wireline carriers are similar to the burdens of implementing service provider portability between wireline carriers.³⁹⁰

³⁸⁸ Notice, 10 FCC Rcd at 12359-60.

³⁸⁹ Id.

³⁹⁰ Id. at 12371.

2. Position of the Parties

142. Parties commenting on CMRS issues generally fall into three groups. One group consists of the providers of Personal Communications Services (PCS). The PCS providers are just beginning to build advanced wireless networks to enter the market. Their successful market entry depends largely upon convincing consumers of other commercial mobile radio services, e.g., cellular, to switch to PCS. The PCS providers therefore want number portability to be implemented as soon as technically possible. A second group is composed primarily of cellular providers, along with paging and messaging service providers. Parties in this category are generally incumbent service providers with relatively less sophisticated systems. These parties generally claim that number portability is unnecessary in the CMRS marketplace and oppose being required to upgrade their networks for such capabilities at allegedly great expense. A third group includes parties, such as Ameritech and AT&T Wireless, that support implementation of number portability by CMRS providers, but on a later deployment schedule than wireline portability so as to allow time for technical issues specific to CMRS to be resolved.³⁹¹

143. Authority to Require CMRS Providers To Provide Number Portability. SBC Communications argues that CMRS providers have no obligation to provide number portability under the 1996 Act, since the 1996 Act's imposes that duty only on LECs, and the definition of LEC specifically excludes CMRS providers. As a result, SBC Communications claims, the Commission should examine CMRS portability separately from wireline portability.³⁹² Similarly, Bell Atlantic NYNEX Mobile, Arch/AirTouch Paging, and MobileMedia argue that the 1996 Act and its legislative history demonstrate that the number portability obligation of section 251(b)(2) was not intended to apply to CMRS providers.³⁹³ BellSouth further argues that CMRS providers should not be required to offer portability until they compete directly with a LEC.³⁹⁴ Moreover, Bell Atlantic NYNEX Mobile asserts that section 332 of the Communications Act only

³⁹¹ See Ameritech May 15, 1996 Ex Parte Presentation at 14 (noting that wireless industry participation in Illinois Commerce Commission number portability workshop is not scheduled to begin until July 1996); AT&T Wireless Services, Inc. Ex Parte Presentation at 11, CC Docket No. 95-116, filed May 24, 1996 (AT&T Wireless May 24, 1996 Ex Parte Filing).

³⁹² SBC Communications Further Comments at 3.

³⁹³ Arch/AirTouch Paging Further Comments at 3-4 & n.8; Bell Atlantic NYNEX Mobile Further Comments at 2; MobileMedia Further Comments at 3-5 (arguing that original House and Senate proposals (H.R. Rep. No. 204, 104th Cong., 1st Sess. 71-72 (1995); S. Rep. No. 23, 104th Cong., 1st Sess. 19-20 (1995)) specified that focus of section 251(b)(2) was to develop competition in local exchange market, not any other competitive markets).

³⁹⁴ BellSouth Further Comments at 6; see also US West Further Reply Comments at 9-10.

subjects CMRS providers to limited regulation, where there is a "clear cut need" for doing so.³⁹⁵

144. Importance of Number Portability to CMRS Providers. Most PCS providers maintain that number portability is important in the CMRS industry because it will promote competition between different types of CMRS providers.³⁹⁶ PCIA supports long-term number portability solutions for broadband PCS systems when they are technically feasible, and urges the Commission to set a consistent long-term nationwide policy for number portability.³⁹⁷ Omnipoint, a winner of several licenses in the broadband PCS C Block auction, explains that the success of PCS entry depends on whether PCS providers can attract a significant share of embedded cellular customers.³⁹⁸

145. PCIA maintains that number portability is of considerable competitive importance to the broadband CMRS market because the advantages of portability will be a significant factor in consumers' decisions to change providers even though they must endure the inconvenience of changing equipment to do so.³⁹⁹ PCS Primeco claims that arguments made by incumbent cellular companies that downplay the importance of CMRS number portability are based on the fact that current cellular subscribers usually do not make their numbers widely known because, under existing cellular pricing plans, subscribers typically pay for both inbound and outbound calls. PCS Primeco contends that, since cellular and other CMRS customers do not distribute their numbers widely, such customers currently may not regard number portability as an important factor in deciding whether to switch CMRS providers. PCS Primeco asserts that in the future, as CMRS providers compete to become a substitute for wireline service, they will not assess charges on inbound calls, and CMRS customers will assign the same importance to number portability as wireline subscribers do today.⁴⁰⁰ PCIA argues similarly that portability will facilitate the convergence of and competition between CMRS and wireline services, which will likely result in cellular customers publishing their telephone

³⁹⁵ Bell Atlantic NYNEX Mobile Further Comments at 3 n.3 (quoting Petition of the Connecticut Dep't of Pub. Util. Control to Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers, Report and Order, 10 FCC Rcd 7025, 7031 (1995) (Petition of CT DPUC, Order), aff'd, Dep't of Pub. Util. Control v. FCC, 78 F.3d 842 (2d Cir. 1996)).

³⁹⁶ See, e.g., Omnipoint Comments at 3; Omnipoint Reply Comments at 12; PCIA Comments at 3-5.

³⁹⁷ PCIA Ex Parte Presentation, CC Docket No. 95-116, filed May 23, 1996 (PCIA May 23, 1996 Ex Parte Filing).

³⁹⁸ Omnipoint Comments at 3; Omnipoint Reply Comments at 9, 12 (urging implementation of service provider portability in 100 largest MSAs between October 1997 and October 1998). See also MCI Comments at 3-4.

³⁹⁹ PCIA Reply Comments at 12-14.

⁴⁰⁰ PCS Primeco Reply Comments at 1-2; see also Pacific Bell Comments at 8.

numbers.⁴⁰¹ PCIA adds that the ability to transfer telephone numbers between wireline and CMRS carriers ameliorates "number exhaustion" concerns.⁴⁰² The Illinois Commerce Commission also considers number portability between wireline and CMRS providers important.⁴⁰³

146. CTIA maintains that the CMRS industry supports the goal of full number portability for all telecommunications providers, including CMRS providers, but claims that the Commission should not delay implementation of service provider portability in the wireline networks while awaiting network solutions for CMRS carriers.⁴⁰⁴ Most of the commenting cellular providers believe that number portability is not as important to CMRS providers as it is to wireline service providers because there is little current demand for CMRS number portability and because of the unique technical problems involved.⁴⁰⁵ AT&T asserts that, while number portability is more important in the wireline market than the CMRS market, the Commission should not preclude such portability for CMRS carriers.⁴⁰⁶ Parties opposing CMRS portability generally argue that the benefits of CMRS portability are diminished by the following factors: (1) substantial competition already exists in the CMRS market since CMRS customers already may choose from multiple competitive carriers;⁴⁰⁷ (2) CMRS customers place less value on their numbers, as indicated by the fact that they do not publish them, do not often make them available through directory assistance, and more frequently change their telephone numbers due to competition and a variety of non-competitive reasons;⁴⁰⁸ (3) number portability would impair the ability of a carrier to identify immediately the validity of a

⁴⁰¹ PCIA Reply Comments at 13. See also Omnipoint Reply Comments at 12 & nn.18, 19.

⁴⁰² PCIA Comments at 5. "Number exhaustion" refers to a situation in which all numbers allotted for a particular function or region have been assigned. For example, in January 1995 there were no more available NPA codes (i.e., area codes) of the N 0/1 X format (e.g., 202 for the Washington, DC area) because all CO codes of the form NNX (i.e., the second three digits of a ten-digit telephone number) within each of those NPA codes had been assigned. See Numbering Plan Order, 11 FCC Rcd at 2593.

⁴⁰³ Illinois Commerce Commission Comments at 3.

⁴⁰⁴ CTIA Comments at 2-5; CTIA Reply Comments at 2; CTIA Further Reply Comments at 6.

⁴⁰⁵ See, e.g., Bell Atlantic NYNEX Mobile Comments at 1; Bell Atlantic NYNEX Mobile Reply Comments at 1; AirTouch/US West New Vector Reply Comments at 3-6.

⁴⁰⁶ AT&T Comments at 9 n.12.

⁴⁰⁷ See, e.g., AirTouch/US West New Vector Reply Comments at 3; Bell Atlantic NYNEX Mobile Comments at 2.

⁴⁰⁸ AirTouch/US West New Vector Reply Comments at 4; CTIA Comments at 9, 10 & n.15; Bell Atlantic NYNEX Mobile Comments at 2-3.

customer's number and thereby prevent fraudulent use of numbers;⁴⁰⁹ (4) customers will have a disincentive to switch carriers because broadband PCS will require equipment that is not compatible with incumbent cellular equipment;⁴¹⁰ (5) number portability would adversely affect roaming capabilities because cellular carriers rely on the ability to identify a roaming cellular customer's "home carrier" by the NPA/NXX;⁴¹¹ (6) service provider portability would require CMRS carriers to expand significantly the capacity of their roaming databases to provide additional information about each subscriber and his or her current service provider;⁴¹² and (7) CMRS uses different signalling protocols than wireline carriers, which will make implementation of number portability more difficult.⁴¹³

147. Paging providers similarly oppose being required to provide number portability. Arch/AirTouch Paging claims that the recent proliferation of new area codes, the introduction of a variety of competing services, and the availability of 800 and 888 numbers (and possibly of portable 500 and 900 numbers) have reduced in general the importance of number portability for all carriers.⁴¹⁴ Arch/AirTouch Paging further argues against the imposition of number portability on CMRS providers because it believes competition will continue to develop without number portability.⁴¹⁵ It maintains that various factors, such as price, service quality, coverage area, equipment functions, customer service, and enhanced service options can overcome the reluctance of customers to change carriers.⁴¹⁶ PageNet argues that paging and messaging service providers should not be required to provide number portability because these services are already competitive, as no single carrier controls more than 12 percent of any paging market, and that markets, on average, have five competing carriers.⁴¹⁷

⁴⁰⁹ Bell Atlantic NYNEX Mobile Comments at 4.

⁴¹⁰ CTIA Comments at 9.

⁴¹¹ AirTouch/US West New Vector Reply Comments at 9. See also Bell Atlantic NYNEX Mobile Comments at 3 (imposing wireless number portability is inadvisable because the Commission is considering multiple, related issues, such as interconnection, roaming, and resale, that would directly affect consideration of number portability); SBC Communications Comments at 6, 15, app. F.

⁴¹² Bell Atlantic NYNEX Mobile Comments at 4.

⁴¹³ Bell Atlantic NYNEX Mobile Reply Comments at 4.

⁴¹⁴ Arch/AirTouch Paging Comments at 5-6.

⁴¹⁵ Id. at 5.

⁴¹⁶ Arch/AirTouch Paging Reply Comments at 9-10.

⁴¹⁷ PageNet Reply Comments at 5.

148. Deployment of Long-Term Solutions by CMRS Carriers. The PCS providers generally assert that CMRS providers will face technical burdens comparable to wireline carriers in updating their networks, and argue that there is no reason to treat CMRS providers differently from wireline carriers.⁴¹⁸ Some CMRS parties indicate that it is technically possible to update cellular and PCS networks to accommodate long-term number portability.⁴¹⁹ PCIA acknowledges that implementation of number portability by CMRS providers presents technical difficulties specific to CMRS, but argues that such difficulties can be overcome.⁴²⁰ PCIA asserts that most broadband carriers already plan to deploy the components necessary to implement LRN (i.e., SS7 signaling, AIN/IN to do database queries and responses, and AIN triggers).⁴²¹ Omnipoint contends that implementation deadlines for number portability should apply equally to wireless and wireline carriers, and proposes implementation in the top 100 MSAs between October 1997 and October 1998.⁴²² Competitive Carriers argues that the Commission's number portability rules should be technology-neutral, and favors requiring implementation of number portability within 24 months of the issuance of our Order throughout the top 100 MSAs.⁴²³

149. In contrast, several cellular interests claim that upgrading cellular networks to handle number portability will require greater time and effort than adapting wireline networks, primarily because relatively few cellular networks have IN or AIN capabilities, and because the current six-digit-based screening used to validate customer information and handle billing will have to be adapted to ten-digit-based screening.⁴²⁴ These parties claim that the necessary standards for functions such as ten-digit-based screening have yet to be developed.⁴²⁵

⁴¹⁸ See, e.g., PCS Primeco Comments at 5; Pacific Bell Comments at 9; PCIA Reply Comments at 12.

⁴¹⁹ See, e.g., Competitive Carriers Reply Comments at 7-8; PCIA Ex Parte Presentation at 1-2, CC Docket No. 95-116, filed Feb. 28, 1996 (PCIA February 28, 1996 Ex Parte Filing).

⁴²⁰ PCIA Reply Comments at 12, 14. See also Competitive Carriers Reply Comments at 7-8.

⁴²¹ PCIA Ex Parte Letter at 3, from Mark J. Golden, to William F. Caton, FCC, CC Docket No. 95-116, filed Mar. 12, 1996 (PCIA March 12, 1996 Ex Parte Letter).

⁴²² Omnipoint Reply Comments at 9-11.

⁴²³ Competitive Carriers Comments at 13, 15; Competitive Carriers Reply Comments at 7-9.

⁴²⁴ See AirTouch Cellular Ex Parte Presentation at 10-17, CC Docket No. 95-116, filed May 15, 1996 (AirTouch Cellular May 15, 1996 Ex Parte Filing); CTIA Ex Parte Presentation at 25-29, CC Docket No. 95-116, filed Apr. 18, 1996 (CTIA April 18, 1996 Ex Parte Filing); CTIA Further Comments at 4-6.

⁴²⁵ See AirTouch Cellular May 15, 1996 Ex Parte Filing at 15-17; CTIA April 18, 1996 Ex Parte Filing at 28-29; CTIA Further Comments at 4-6.

150. Several parties caution that implementing number portability for CMRS providers will require more time than for wireline service providers because to date, industry efforts aimed at developing number portability have focused on wireline carriers. For example, CMRS carriers did not participate in the Illinois number portability workshop and CMRS carriers generally have not participated in technical trials of number portability.⁴²⁶ PCIA estimates that it will be four to five years before CMRS networks are capable of implementing long-term number portability.⁴²⁷ Similarly, AT&T Wireless argues that CMRS carriers must follow a different implementation schedule than wireline.⁴²⁸

151. Interim Number Portability Measures. Many of the CMRS carriers oppose requiring CMRS carriers to provide measures such as RCF and DID.⁴²⁹ PCIA and Arch/AirTouch Paging claim that requiring interim measures would divert resources from, and thus delay implementation of, a long-term method.⁴³⁰ The paging service providers, in particular, oppose interim measures as not cost-justified and unnecessary for the already competitive paging industry.⁴³¹ According to PCIA, RCF and DID currently cannot be provided by mobile telephone switching offices and would be more problematic and expensive to deploy in a CMRS network than in a wireline network.⁴³² For example, PCIA claims that RCF requires carriers to maintain a point of interconnection within each NPA in which it intends to provide such service, and that, currently, many broadband CMRS carriers' switches do not interconnect at all such points.⁴³³ In addition, PCIA asserts that most new broadband carriers are already planning to deploy the components necessary to implement a long-term database method as part of their initial network

⁴²⁶ See Ameritech May 15, 1996 Ex Parte Filing at 14 (noting that wireless industry participation in Illinois Commerce Commission number portability workshop is not scheduled to begin until July 1996); PCIA March 12, 1996 Ex Parte Letter at 2.

⁴²⁷ PCIA May 23, 1996 Ex Parte Filing.

⁴²⁸ AT&T Wireless May 24, 1996 Ex Parte Filing at 11.

⁴²⁹ See, e.g., Arch/AirTouch Paging Comments at 12; Bell Atlantic NYNEX Mobile Reply Comments at 5; Nextel Comments at 5.

⁴³⁰ See PCIA March 12, 1996 Ex Parte Letter at 2; Arch/AirTouch Paging Comments at 14-15.

⁴³¹ Arch/AirTouch Paging Comments at 14-15; PageNet Comments at 8-9; PageNet Reply Comments at 6; see also PCIA Ex Parte Letter at 1-2, from Mark J. Golden, to William F. Caton, FCC, CC Docket No. 95-116, filed Mar. 28, 1996 (PCIA March 28, 1996 Ex Parte Letter).

⁴³² PCIA March 12, 1996 Ex Parte Letter at 2-3.

⁴³³ See id. at 3.

designs.⁴³⁴ Consequently, those new broadband carriers might have to spend as much or more to upgrade their networks to support interim measures as they would to upgrade to support a long-term database method. Because substantial resources would have to be devoted to modifying CMRS networks to support interim measures, and thus diverted away from modifying CMRS networks to support long-term number portability, requiring implementation of interim measures now might delay future implementation of the long-term method.⁴³⁵ Other CMRS carriers make claims of technical inefficiencies, but acknowledge that RCF and DID are technically possible for CMRS providers today.⁴³⁶

3. Discussion

152. Authority to Require CMRS Providers to Provide Number Portability. Section 251(b) requires local exchange carriers to provide number portability to all telecommunications carriers, and thus to CMRS providers as well as wireline service providers. The statute, however, explicitly excludes commercial mobile service providers from the definition of local exchange carrier, and therefore from the section 251(b) obligation to provide number portability, unless the Commission concludes that they should be included in the definition of local exchange carrier.⁴³⁷ Our recent NPRM on interconnection issues raised by the 1996 Act seeks comment on whether, and to what extent, CMRS providers should be classified as LECs.⁴³⁸ Because we conclude that we have independent bases of jurisdiction over commercial mobile service providers, we need not decide here whether CMRS providers must provide number portability as local exchange carriers under section 251(b).

153. We possess independent authority under sections 1, 2, 4(i), and 332 of the Communications Act of 1934, as amended, to require CMRS providers to provide number portability as we deem appropriate. Ensuring that the portability of telephone numbers within the United States is handled efficiently and fairly is within our jurisdiction under these other provisions of the Communications Act.⁴³⁹ Sections 2 and 332(c)(1) of the Act give the Commission authority to regulate commercial mobile service providers as common carriers, except for the provisions of Title II that we specify are

⁴³⁴ Id.

⁴³⁵ See id. at 2-3.

⁴³⁶ See, e.g., Nextel Comments at 5; PageNet Reply Comments at 6.

⁴³⁷ See 47 U.S.C. § 153(26).

⁴³⁸ Interconnection NPRM at ¶ 195.

⁴³⁹ 47 U.S.C. § 151.

inapplicable.⁴⁴⁰ Section 1 of the Act requires the Commission to make available to all people of the United States "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service."⁴⁴¹ The Commission's interest in number portability is bolstered by the potential deployment of different number portability solutions across the country, which would significantly impact the provision of interstate telecommunications services.⁴⁴² Section 1 also creates a significant federal interest in the efficient and uniform treatment of numbering because such a system is essential to the efficient delivery of interstate and international telecommunications.⁴⁴³ Implementation of long-term service provider portability by CMRS carriers will have an impact on the efficient use and uniform administration of the numbering resource. Section 4(i) grants the Commission authority to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with [the Communications Act of 1934, as amended], as may be necessary in the execution of its functions."⁴⁴⁴ We conclude that the public interest is served by requiring the provision of number portability by CMRS providers because number portability will promote competition between providers of local telephone services and thereby promote competition between providers of interstate access services.⁴⁴⁵

154. Bell Atlantic NYNEX Mobile cites the CT DPUC Petition in support of its argument that the Commission can only regulate CMRS providers under section 332 to the extent clearly necessary, and that regulation of number portability is not clearly necessary in the CMRS market.⁴⁴⁶ We conclude, however, that the CT DPUC Petition does not limit our authority to require CMRS providers to provide number portability to other CMRS or wireline carriers because that proceeding did not address the Commission's authority to require CMRS providers to provide number portability. That

⁴⁴⁰ 47 U.S.C. §§ 152, 332. Section 332 provides that "[a] person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this Act, except for such provisions of title II as the Commission may specify by regulation as inapplicable to that service or person." 47 U.S.C. § 332(c)(1)(A).

⁴⁴¹ 47 U.S.C. § 151.

⁴⁴² See, e.g., ACTA Comments at 6-7; Florida PSC Comments at 6; Omnipoint Comments at 5.

⁴⁴³ See Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois, Declaratory Ruling and Order, 10 FCC Rcd 4596, 4602 (1995).

⁴⁴⁴ 47 U.S.C. § 154(i).

⁴⁴⁵ See Notice, 10 FCC Rcd at 12362; Expanded Interconnection with Local Telephone Company Facilities, Memorandum Opinion and Order, 9 FCC Rcd 5154, 5158-59 (1994).

⁴⁴⁶ Bell Atlantic NYNEX Mobile Further Comments at 3 n.3 (citing Petition of CT DPUC, Order, 10 FCC Rcd at 7031).

proceeding related solely to state authority to regulate rates of CMRS providers.⁴⁴⁷ We believe that imposing number portability obligations on CMRS providers will foster increased competition in the CMRS marketplace, and furthers our CMRS regulatory policy of establishing moderate, symmetrical regulation of all services, and a preference for curing market imperfections by lowering barriers to entry in order to encourage competition.⁴⁴⁸

155. Importance of Number Portability to CMRS Providers. We require cellular, broadband PCS, and covered specialized mobile radio (SMR) providers (as defined in the First Report and Order in CC Docket 94-54),⁴⁴⁹ which are the CMRS providers that are expected to compete in the local exchange market, to offer number portability. This mandate is in the public interest because it will promote competition among cellular, broadband PCS, and covered SMR carriers, as well as among CMRS and wireline providers. We therefore include those carriers in our mandate to provide long-term service provider portability, under the Commission-mandated performance criteria set forth above, pursuant to our authority under sections 1, 2, 4(i), and 332 of the Communications Act of 1934.⁴⁵⁰ This mandate applies when switching among wireline service providers and broadband CMRS providers, as well as among broadband CMRS providers, even if the broadband CMRS and wireline service providers or the two broadband CMRS providers are affiliated. We base this conclusion on our view, as discussed in the following paragraphs, that cellular, broadband PCS, and covered SMR providers will compete directly with one another, and potentially will compete in the future with wireline carriers.

156. We specifically exclude at this time paging and other messaging services,⁴⁵¹ and the following CMRS providers as listed in Part 20 of our rules: Private Paging, Business Radio Services, Land Mobile Systems on 220-222 MHz, Public Coast Stations, Public Land Mobile Service, 800 MHz Air-Ground Radio-Telephone Service, Offshore

⁴⁴⁷ Petition of CT DPUC, Order, 10 FCC Rcd at 7025, 7032-33.

⁴⁴⁸ See Petition of CT DPUC, Order, 10 FCC Rcd at 7033-34 (concluding that Omnibus Budget Reconciliation Act of 1993 validates the Commission's CMRS regulatory approach).

⁴⁴⁹ Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, First Report and Order, CC Docket 94-54, FCC 96-263 (adopted June 12, 1996).

⁴⁵⁰ For performance criteria, see supra ¶ 48.

⁴⁵¹ Because of the technical hurdles faced by paging and other messaging service providers, the minimal impact that paging and other messaging services have on local exchange competition, and the competitive nature of paging and within the paging industry, we conclude that the costs to paging companies to upgrade their networks to accommodate either interim or long-term number portability solutions, estimated at \$30 million by one carrier, outweigh the competitive benefits derived from service provider portability. See, e.g., PCIA Comments at 5 n.17; PCIA Comments at 5; PCIA Reply Comments at 15-16; Arch/Airtouch Paging Comments at 14.

Radio Service, Mobile Satellite Services, Narrowband PCS Services.⁴⁵² We do so because such services currently will have little competitive impact on competition between providers of wireless telephony service or between wireless and wireline carriers. Because local SMR licensees offering mainly dispatch services to specialized customers in a non-cellular system configuration do not compete substantially with cellular and broadband PCS providers, we also exclude them from the number portability requirements we adopt today. For similar reasons, we also specifically exclude at this time Local Multipoint Distribution Service (LMDS). If, however, any of these services begins to compete in the local exchange market, or if there are other public interest reasons to require them to provide number portability, we will reassess the exclusion of these services from the requirement to provide number portability.

157. Service provider portability between cellular, broadband PCS, and covered SMR providers is important because customers of those carriers, like customers of wireline providers, cannot now change carriers without also changing their telephone numbers. While we recognize that customers may need to purchase new equipment when switching among such CMRS providers,⁴⁵³ the inability of customers to keep their telephone numbers when switching carriers also hinders the successful entrance of new service providers into the cellular, broadband PCS, and SMR markets.⁴⁵⁴ We believe, therefore, that service provider portability, by eliminating one major disincentive to switch carriers, will ameliorate customers' disincentive to switch carriers if they must purchase new equipment. We believe service provider portability will promote competition between existing cellular carriers, as well as facilitate the viable entry of new providers of innovative service offerings, such as PCS and covered SMR providers.⁴⁵⁵

⁴⁵² See 47 C.F.R. § 20.9.

⁴⁵³ See CTIA Comments at 9.

⁴⁵⁴ See, e.g., Nextel Comments at 3-4; Omnipoint Comments at 3-4.

⁴⁵⁵ As of 1995, CMRS encompassed approximately 25 million cellular subscribers, 25 million pagers, and 2 million SMR transmitters. See Implementation of Section 6002(B) of the Omnibus Reconciliation Act of 1993, First Report, 10 FCC Rcd 8844, 8847 n.9 (1995) (First Report on CMRS).

158. With the recent and expected future entry of new PCS providers,⁴⁵⁶ and the growth of existing CMRS generally,⁴⁵⁷ we believe it important that service provider portability for cellular, broadband PCS, and covered SMR providers be made available so as to remove barriers to competition among such providers. Removing barriers, such as the requirement of changing telephone numbers when changing providers, will likely stimulate the development of new services and technologies, and create incentives for carriers to lower prices and costs. We find unpersuasive arguments that number portability is unimportant because the CMRS market is already substantially competitive since CMRS customers already may choose from multiple competitive carriers.⁴⁵⁸ Most CMRS customers today subscribe to cellular service because broadband PCS has been offered for a very short time, SMR service has typically been used for communications among mobile units of the same business subscriber (e.g., taxi dispatch), and mobile satellite services have typically been used only in rural areas.⁴⁵⁹ The possibility of entry by new competitors can constrain monopolistic, or in this case, duopolistic, conduct by incumbent providers and thus serve the public interest by potentially lowering prices, improving service quality, and encouraging innovation.⁴⁶⁰ We note that while the cellular industry, with two facilities-based carriers offering service in each market area, is more competitive than traditional monopoly telephone markets, it is far from perfectly competitive. The United States Government Accounting Office, the Department of Justice, and the Commission have determined that only limited competition currently exists in the cellular market.⁴⁶¹

⁴⁵⁶ The Commission has awarded or will award a total of 2074 broadband PCS licenses. The A and B Blocks are licensed within 51 Major Trading Areas (MTAs), and the C, D, E, and F Blocks are licensed within 493 Basic Trading Areas (BTAs). Ultimately, six broadband PCS providers will operate in each market. Amendment of the Commission's Rules to Establish New Personal Communications Services, Memorandum Opinion and Order, 9 FCC Rcd 4957, 4963 (1994).

⁴⁵⁷ The cellular industry has approached or exceeded 50% growth rates in each of the last 10 years. Double-digit growth rates for CMRS are anticipated during the next several years. First Report on CMRS, 10 FCC Rcd at 8846, 8848, 8855-56.

⁴⁵⁸ See, e.g., AirTouch/US West New Vector Reply Comments at 3; Bell Atlantic NYNEX Mobile Comments at 2.

⁴⁵⁹ See First Report on CMRS, 10 FCC Rcd at 8855-61. We have recognized that covered SMR service providers have the potential to compete with cellular and broadband PCS carriers. See Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, First Report and Order, CC Docket No. 94-54, FCC 96-263 (adopted June 12, 1996).

⁴⁶⁰ First Report on CMRS, 10 FCC Rcd at 8871 (citing United States v. Waste Management, Inc., 743 F.2d 976, 982-83 (2d Cir. 1984); American Bar Association, Antitrust Law Developments at 307-11 (3d ed. 1992)).

⁴⁶¹ First Report on CMRS, 10 FCC Rcd at 8866-67 (citing Memorandum of the United States in Response to the Bell Companies' Motions for Generic Wireless Waivers at 14-18, United States v. Western Electric Co., 158 F.R.D. 211 (D.D.C. 1994), Civ. Action No. 82-0192, filed July 25, 1994; July 1992 Gen. Acct'g Off.

159. We conclude that number portability will facilitate the entry of new service providers, such as PCS and covered SMR providers, into CMRS markets currently dominated by cellular carriers, and thus provide incentives for incumbent cellular carriers to lower prices and increase service choice and quality. Indeed, we noted recently that competition from PCS, alone, is expected to reduce cellular prices by as much as 40% over the next two years.⁴⁶² We believe that such pro-competitive effects will be enhanced by eliminating the need for customers to change telephone numbers when switching providers of cellular services, broadband PCS, and covered SMR services.

160. We further conclude that number portability will promote competition between CMRS and wireline service providers as CMRS providers offer comparable local exchange and fixed commercial mobile radio services.⁴⁶³ The Commission has recognized on several occasions that CMRS providers, such as broadband PCS and cellular, will compete in the local exchange marketplace.⁴⁶⁴ For example, the Commission permitted Southwestern Bell Mobile Systems, Inc. to own local exchange facilities outside of Southwestern Bell's service area in order to "promote significant Commission objectives by encouraging local loop competition. The development of CMRS is one of several potential sources of competition that we have identified to bring market forces to bear on the existing LECs."⁴⁶⁵ The Commission also adopted an auction licensing mechanism to speed deployment of PCS and thereby "create competition for existing wireline and wireless services."⁴⁶⁶ In addition, the Commission decided to permit foreign investment in Sprint Corporation based, in part, on a finding that a portion

Rep., Telecommunications: Concerns About Competition in the Cellular Telephone Service Industry, GAO/RCED-92-220 at 2).

⁴⁶² First Report on CMRS, 10 FCC Rcd at 8871.

⁴⁶³ See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, Notice of Proposed Rulemaking, 11 FCC Rcd 2445 (1996) (Fixed CMRS Notice). See also Implementation of Section 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Second Report and Order, 9 FCC Rcd 1411, 1422 (1994) (Second CMRS Report and Order).

⁴⁶⁴ See, e.g., Fixed CMRS Notice, 11 FCC Rcd at 2447 (quoting Rule Making to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band, to Reallocate the 29.5 - 30.0 GHz Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, Third Notice of Proposed Rulemaking and Supplemental Tentative Decision, 11 FCC Rcd 53, 64 (rel. July 28, 1995) (Rule Making to Amend Parts 1, 2, 21, and 25)); First Report on CMRS, 10 FCC Rcd at 8869-70; Omnipoint Reply Comments at 12. See also Southwestern Bell Mobile Systems, Inc., Memorandum Opinion and Order, 11 FCC Rcd 3386, 3395 (1995); Implementation of Section 309(j) of the Communications Act - Competitive Bidding, Second Report and Order, 9 FCC Rcd 2348, 2350 (1994); Sprint Corporation, 11 FCC Rcd 1850, 1863 (1996).

⁴⁶⁵ Southwestern Bell Mobile Systems, Inc., 11 FCC Rcd at 3395 (1995) (footnote omitted).

⁴⁶⁶ Implementation of Section 309(j) of the Communications Act - Competitive Bidding, 9 FCC Rcd at 2350.

of that investment would be used to fund PCS competition with wireline local exchange providers in the U.S. market.⁴⁶⁷ Finally, in the Fixed CMRS Notice, the Commission tentatively concluded that PCS and cellular providers will provide fixed CMRS local loop services, and that such carriers will directly compete with traditional wireline local exchange carriers.⁴⁶⁸ We believe, for the reasons stated above, that service provider portability will encourage CMRS-wireline competition, creating incentives for carriers to reduce prices for telecommunications services and to invest in innovative technologies, and enhancing flexibility for users of telecommunications services.⁴⁶⁹

161. We find unpersuasive commenters' arguments that number portability is not a competitive issue for CMRS providers because consumers are not interested in retaining their CMRS numbers.⁴⁷⁰ We recognize that currently customers of cellular, broadband PCS, and covered SMR providers may generally initiate more calls than they receive, and are reluctant to distribute their CMRS telephone numbers. We agree with the argument advanced by PCS Primeco that this reluctance generally is caused by the current cellular carrier pricing structures, under which customers pay for incoming calls, rather than lack of attachment to CMRS telephone numbers.⁴⁷¹ Several parties have indicated that at least some CMRS providers intend to compete with wireline carriers in the local exchange market.⁴⁷² To do so effectively, CMRS carriers are likely to change their pricing structures to resemble more closely wireline pricing structures.⁴⁷³ As broadband CMRS pricing structures are modified as a likely result of increased competition, and cellular, broadband PCS, and covered SMR become integrated and less functionally distinguishable from wireline services, customers may be more likely to make their CMRS telephone numbers known, and utilize numbering resources in a

⁴⁶⁷ Sprint Corporation, 11 FCC Rcd at 1863.

⁴⁶⁸ Fixed CMRS Notice, 11 FCC Rcd at 2447 (quoting Rule Making to Amend Parts 1, 2, 21, and 25, 11 FCC Rcd at 27).

⁴⁶⁹ See Expanded Interconnection with Local Telephone Company Facilities, 9 FCC Rcd at 5155.

⁴⁷⁰ See AirTouch/US West New Vector Reply Comments at 4; CTIA Comments at 9, 10 & n.15; Bell Atlantic NYNEX Mobile Comments at 2-3.

⁴⁷¹ See Pacific Bell Comments at 8; PCS Primeco Reply Comments at 1-2.

⁴⁷² See, e.g., AT&T Wireless Services, Inc. Ex Parte Letter at 2, from Cathleen A. Massey, to William F. Caton, FCC, CC Docket No. 95-116, filed May 28, 1996 (AT&T Wireless May 28, 1996 Ex Parte Letter); Competitive Carriers Comments at 13; Competitive Carriers Reply Comments at 8; Omnipoint Reply Comments at 12. See also PCIA Reply Comments at 13; PCS Primeco Reply Comments at 1-2.

⁴⁷³ See PCS Primeco Reply Comments at 1-2 ("if wireless service is to more nearly resemble [sic] plain old telephone service, 'calling party pays' will have to become the rule rather than the exception for wireless service").

manner more comparable with that of the current wireline market.⁴⁷⁴ We, therefore, conclude that requiring number portability for cellular, broadband PCS, and covered SMR providers will enhance the development of competition among those providers and among CMRS and wireline service providers.

162. Deployment of Long-Term Solutions by CMRS Carriers. The record of this proceeding suggests that cellular, broadband PCS, and covered SMR providers will face burdens comparable to wireline carriers in modifying their networks to implement number portability, and that any technical issues that are unique to those carriers can be resolved.⁴⁷⁵ While a number of parties have raised CMRS-specific issues that must be resolved before CMRS carriers can effectively provide number portability, we conclude that the record demonstrates that none of these difficulties are insurmountable.⁴⁷⁶ Several parties claim that CMRS networks can be updated to accommodate long-term number portability.⁴⁷⁷ In addition, the report on number portability recently released by the INC indicates that broadband CMRS roaming systems, including mobile station registration and call delivery, switches, protocols, and wireline interconnection arrangements can be updated to accommodate number portability.⁴⁷⁸ PCIA asserts that most broadband carriers already plan to deploy the components necessary to implement LRN (i.e., SS7 signaling, IN/AIN to do database queries and responses, and AIN triggers).⁴⁷⁹ Omnipoint argues that the cellular industry has failed to demonstrate why CMRS-specific technical issues cannot be worked out within the same time as wireline technical issues.⁴⁸⁰

163. A number of commenters, however, also suggest that implementation of service provider portability for broadband CMRS would necessitate more time than deployment of wireline methods. For instance, several cellular interests claim that upgrading cellular networks to handle number portability will require greater time and effort than adapting wireline networks, primarily because relatively few cellular networks have IN or AIN capabilities, and because the current six-digit-based screening used to provide roaming, validate customer information, and handle billing will have to be

⁴⁷⁴ See id. at 2.

⁴⁷⁵ See, e.g., Competitive Carriers Reply Comments at 8; Pacific Bell Comments at 9; PCIA February 28, 1996 Ex Parte Filing at 1-2; PCS Primeco Comments at 5.

⁴⁷⁶ See supra ¶ 146. .

⁴⁷⁷ See, e.g., Competitive Carriers Comments at 13; Competitive Carriers Reply Comments at 7-8; PCIA Ex Parte Presentation at 1-2, CC Docket No. 95-116, filed Feb. 28, 1996 (PCIA February 28, 1996 Ex Parte Filing).

⁴⁷⁸ INC Report at 41-43.

⁴⁷⁹ PCIA March 12, 1996 Ex Parte Letter at 3.

⁴⁸⁰ Omnipoint Reply Comments at 11.

adapted to ten-digit-based screening.⁴⁸¹ These parties claim that the necessary standards for functions such as ten-digit-based screening have yet to be developed.⁴⁸²

164. It appears that while the wireline industry has already developed many of the standards and protocols necessary for wireline carriers to provide number portability, the CMRS industry is only beginning to address the additional standards and protocols specific to the provision of portability by CMRS carriers. The technical requirements for broadband CMRS portability have been given comparatively little attention compared to those for wireline. Initial state efforts have generally not addressed CMRS issues; for example, the Illinois Number Portability Workshop, which began studying wireline portability in April 1995, only plans to begin addressing CMRS portability in July 1996.⁴⁸³ Moreover, cellular, broadband PCS, and covered SMR providers face technical burdens unique to the provision of seamless roaming on their networks, and standards and protocols will have to be developed to overcome these difficulties. Therefore, based on the record, and the technical evidence presented both by the parties in this proceeding and the INC Report, we conclude that cellular, broadband PCS, and covered SMR providers should implement long-term service provider portability based on the following schedule.

165. We require all cellular, broadband PCS, and covered SMR carriers to have the capability of querying appropriate number portability database systems in order to deliver calls from their networks to ported numbers anywhere in the country by December 31, 1998, the date by which wireline carriers must complete implementation of number portability in the largest 100 MSAs. This schedule will ensure that cellular, broadband PCS, and covered SMR providers will have the ability to route calls from their customers to a wireline customer who has ported his or her number, by the time a substantial number of wireline customers have the ability to port their numbers between wireline carriers.⁴⁸⁴ This capability to access a database for routing information can be accomplished in either of two ways. First, the carrier may implement hardware and software upgrades (e.g., IN/AIN capabilities) similar to those needed in wireline networks. Since these upgrades do not require development of the standards and protocols necessary to support roaming, we believe that cellular, broadband PCS, and

⁴⁸¹ See AirTouch Cellular May 15, 1996 Ex Parte Filing at 10-17; CTIA April 18, 1996 Ex Parte Filing at 25-29; CTIA Further Comments at 4-6.

⁴⁸² See AirTouch Cellular May 15, 1996 Ex Parte Filing at 15-17; CTIA April 18, 1996 Ex Parte Filing at 28-29; CTIA Further Comments at 4-6.

⁴⁸³ Ameritech May 15, 1996 Ex Parte Filing at 13-14; Nortel Ex Parte Presentation at 7, CC Docket No. 95-116, filed May 21, 1996 (Nortel May 21, 1996 Ex Parte Filing).

⁴⁸⁴ See CTIA April 18, 1996 Ex Parte Filing at 20-21 (asserting that even if number portability is limited to the wireline network, CMRS service providers must still modify their method of routing calls from their CMRS customers to wireline customers who have ported their numbers).

covered SMR carriers should be able to complete these upgrades by the date by which wireline carriers must complete implementation of number portability in the largest 100 MSAs. Second, the carrier may make arrangements with other carriers that are capable of performing database queries. Cellular, broadband PCS, and covered SMR carriers operating in areas outside the largest 100 MSAs thus would need to make arrangements with other CMRS providers that have the capability to query databases, or with wireline carriers in the largest 100 MSAs, which will have completed deployment of number portability by December 31, 1998.

166. We require all cellular, broadband PCS, and covered SMR carriers to offer service provider portability throughout their networks, including the ability to support roaming, by June 30, 1999.⁴⁸⁵ The record indicates that additional time is needed to develop standards and protocols, such as ten-digit-based screening, to overcome the technical burdens unique to the provision of seamless roaming on cellular, broadband PCS, and covered SMR networks.⁴⁸⁶ Individual carriers, of course, may implement number portability sooner, and we expect that some carriers will do so based on individual technical, economic, and marketing considerations. We believe a nationwide implementation date for number portability for cellular, broadband PCS, and covered SMR providers is necessary to ensure that validation necessary for roaming can be maintained.⁴⁸⁷ We delegate authority to the Chief, Wireless Telecommunications Bureau, to establish reporting requirements in order to monitor the progress of cellular, broadband PCS, and covered SMR providers implementing number portability, and to direct such carriers to take any actions necessary to ensure compliance with this deployment schedule. We believe it necessary to establish reporting requirements for CMRS to ensure timely resolution of the standards issues unique to CMRS number portability, particularly roaming.

167. We recognize, however, that additional technical issues may arise as the industry begins to focus on provision of portability by CMRS carriers. We therefore delegate authority to the Chief, Wireless Telecommunications Bureau, to waive or stay any of the dates in the implementation schedule, as the Chief determines is necessary to ensure the efficient development of number portability, for a period not to exceed 9

⁴⁸⁵ See Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, Second Report and Order and Third Notice of Proposed Rulemaking, CC Docket No. 94-54, FCC 96-284 (adopted June 27, 1996) (imposing manual roaming non-discrimination requirements). We recognize that customers may not be able to roam into some systems due to technical incompatibilities (e.g. different air interface technologies) between the system and the customer's handset. Nothing in this Order should be interpreted as requiring such capability.

⁴⁸⁶ See, e.g., AirTouch Cellular May 15, 1996 Ex Parte Filing at 15-17; CTIA April 18, 1996 Ex Parte Filing at 28-29; CTIA Further Comments at 4-6.

⁴⁸⁷ See AirTouch Cellular May 15, 1996 Ex Parte Filing at 10-17; CTIA April 18, 1996 Ex Parte Filing at 25-29; Nortel May 21, 1996 Ex Parte Filing at 5-7.

months (i.e., no later than September 30, 1999, for the first deadline, and no later than March 31, 2000, for the second deadline).

168. In the event a carrier is unable to meet our deadlines for implementing a long-term number portability solution, it may file with the Commission at least 60 days in advance of the deadline a petition to extend the time by which implementation in its network will be completed. We emphasize, however, that carriers are expected to meet the prescribed deadlines, and a carrier seeking relief must present extraordinary circumstances beyond its control in order to obtain an extension of time. Carriers seeking such relief must demonstrate through substantial, credible evidence the basis for its contention that it is unable to comply with our deployment schedule. Such requests must set forth: (1) the facts that demonstrate why the carrier is unable to meet our deployment schedule; (2) a detailed explanation of the activities that the carrier has undertaken to meet the implementation schedule prior to requesting an extension of time; (3) an identification of the particular switches for which the extension is requested; (4) the time within which the carrier will complete deployment in the affected switches; and (5) a proposed schedule with milestones for meeting the deployment date.

169. Interim Number Portability Measures. We do not require CMRS providers to provide RCF, DID, or comparable measures. Different treatment of CMRS and wireline carriers in this instance is justified by their differing circumstances. According to the record, RCF and DID currently cannot be provided by mobile telephone switching offices.⁴⁸⁸ Due to the different nature of CMRS networks and wireline networks, implementation of RCF or DID capability in a CMRS network appears far more problematic and expensive than in a wireline network.⁴⁸⁹ For example, PCIA claims that RCF requires carriers to maintain a point of interconnection within each NPA in which it intends to provide such service, and that currently, many broadband CMRS carriers' switches do not interconnect at all such points.⁴⁹⁰ Moreover, cellular roaming systems would have to be modified to account for the fact that, under RCF, a number different than the one dialed is used to route the call. As a result, alternative means will have to be developed to enable CMRS carriers to validate mobile subscribers who have roamed out of their service areas.⁴⁹¹ Broadband carriers may also have to purchase new switches in order to provide RCF and DID. Moreover, most new broadband carriers are already planning to deploy the components necessary to implement a long-term database method

⁴⁸⁸ PCIA March 12, 1996 Ex Parte Letter at 2-3; PCIA February 28, 1996 Ex Parte Filing at 1-2.

⁴⁸⁹ See generally PCIA March 12, 1996 Ex Parte Letter; PCIA March 28, 1996 Ex Parte Letter.

⁴⁹⁰ See PCIA March 12, 1996 Ex Parte Letter at 3.

⁴⁹¹ See AT&T Wireless, Inc. Ex Parte Letter, from Cathleen A. Massey, to William Caton, FCC, CC Docket No. 95-116, filed May 24, 1996 (AT&T May 24, 1996 Ex Parte Letter).

as part of their initial network designs.⁴⁹² Consequently, those new broadband carriers might have to spend as much or more to upgrade their networks to support interim measures as they would spend to upgrade to support a long-term database method, and requiring implementation of both might delay implementation of the long-term method.⁴⁹³ We also find it significant that, while the wireline parties advocating full portability generally support interim measures, the CMRS parties advocating full portability generally oppose interim measures.⁴⁹⁴

170. We therefore conclude that it would be counterproductive to require CMRS carriers to provide interim measures since they can provide long-term portability comporting with our standards just as quickly and less expensively. We believe that relieving cellular, broadband PCS, and covered SMR carriers of the burden of providing interim measures will allow them to devote their full resources toward implementing a long-term method and thus enhance their ability to provide long-term portability on the same schedule as wireline carriers.⁴⁹⁵ We note that CMRS carriers are, of course, free to provide interim number portability, if they choose to do so.

171. Number Transferability. A few parties raise the issue of number transferability, the ability of a reseller to transfer telephone numbers from one facilities-based carrier to another in order to permit the reseller's end user customers to retain their existing telephone numbers.⁴⁹⁶ Because the record does not establish any relationship between number transferability and number portability, and does not identify the technical issues involved in providing number transferability, we decline to address the provision of number transferability in this proceeding. We note that this issue has been raised in the Second CMRS Interconnection NPRM, and will be addressed in CC Docket No. 94-54.⁴⁹⁷

⁴⁹² PCIA March 12, 1996 Ex Parte Letter at 3.

⁴⁹³ Id. at 2-3.

⁴⁹⁴ See, e.g., id.; PCIA February 28, 1996 Ex Parte Filing at 1-2.

⁴⁹⁵ PCIA March 12, 1996 Ex Parte Letter at 2.

⁴⁹⁶ See, e.g., AirTouch/US West New Vector Reply Comments at 8; CTIA Comments at 2; CTIA Reply Comments at 4-5 (asserting that approximately 13.2% of cellular customers change carriers annually); Time Warner Telecom Reply Comments at 7, Exhibit (supporting obligation of cellular licensees to provide number transferability). See also Notice, 10 FCC Rcd at 12360 n.31.

⁴⁹⁷ See Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, Second Notice of Proposed Rulemaking, 10 FCC Rcd 10666 (1995).

H. Service and Location Portability

1. Background

172. While service provider portability refers to the ability of end users to retain the same telephone numbers as they change from one service provider to another, service portability refers to the ability of users of telecommunications services to retain existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications service to another service provided by the same telecommunications carrier. We regard switching among wireline service providers and broadband CMRS providers, or among broadband CMRS providers, as changing service providers, not changing services, even if the broadband CMRS and wireline service providers or the two broadband CMRS providers are affiliated. We base this conclusion on our view that CMRS providers, such as cellular, broadband PCS, and covered SMR providers, compete directly with one another, and broadband CMRS providers potentially will compete in the future with wireline carriers.⁴⁹⁸

173. Today, telephone subscribers must change their telephone number when they change telephone service (e.g., from Plain Old Telephone Services (POTS) to Integrated Services Digital Network (ISDN)) because a particular service may be available only through a particular switch. In our Notice, we sought comment on the demand for service portability and the extent to which a lack of service portability inhibits the growth of new services, such as ISDN.⁴⁹⁹ We requested information on the relative importance of service portability to the decisions of end users when considering whether to switch from one service to another. We also sought comment on what public interest objectives would be served by encouraging (or possibly mandating) implementation of service portability, and how the Commission could encourage service portability.⁵⁰⁰

174. Location portability refers to the ability of users of telecommunications services to retain existing telecommunications numbers without impairment of quality, reliability, or convenience when moving from one physical location to another.⁵⁰¹ Today, telephone subscribers must change their telephone numbers when they move outside the area served by their current central office. In our Notice, we sought comment on the demand for location portability and the geographic area in which portability might be desired by consumers. We asked what federal policy objectives would be served by

⁴⁹⁸ See supra ¶¶ 157-161.

⁴⁹⁹ Notice, 10 FCC Rcd at 12360.

⁵⁰⁰ Id.

⁵⁰¹ Id.

encouraging (or possibly mandating) implementation of location portability, and how such objectives could be attained.⁵⁰² We sought comment on the potential impact that location portability for wireline telephone numbers and the development of the 500 personal communications services market, which permits customers to be reached through a single telephone number regardless of their location, may have on each other.⁵⁰³

2. Position of the Parties

175. Most parties agree that location portability and service portability do not have the same potential impact on consumer choice and on the development of local competition as service provider portability.⁵⁰⁴ Pacific Bell and the Missouri PSC argue that the availability of service portability will be driven by market forces, and that product differentiation will stimulate customers to change their telecommunications services.⁵⁰⁵ Ameritech and SBC Communications note that since the 1996 Act addresses only service provider portability, the Commission should not adopt rules mandating service and location portability.⁵⁰⁶ OPASTCO claims that requiring service portability would strain the limited abilities of small LECs, and thus delay deployment of rural infrastructure.⁵⁰⁷ The Missouri PSC and New York DPS argue that there currently is not enough demand for ISDN to warrant requiring service portability.⁵⁰⁸ The Florida PSC, on the other hand, maintains that, in many cases, service portability is already available, as long as the switch has the needed functionality.⁵⁰⁹

176. Most parties agree that implementation of location portability poses many problems, including: (1) loss of geographic identity of one's telephone number;⁵¹⁰ (2)

⁵⁰² Id.

⁵⁰³ The geographic mobility offered through 500 number services requires customers to change their existing telephone numbers to 500 numbers.

⁵⁰⁴ See, e.g., ACTA Comments at 4-6; California PUC Comments at 5; Pacific Bell Comments at 11-12, 26.

⁵⁰⁵ Missouri PSC Comments at 1-2; Pacific Bell Comments at 25-26. See also ACTA Comments at 5.

⁵⁰⁶ Ameritech Further Comments at 1; SBC Communications Further Comments at 2. See also NYNEX Further Reply Comments at 4-6.

⁵⁰⁷ OPASTCO Comments at 14.

⁵⁰⁸ Missouri PSC Comments at 1-2; New York DPS Comments at 5.

⁵⁰⁹ Florida PSC Comments at 4.

⁵¹⁰ See, e.g., AT&T Comments at 7-8; GVNW Comments at 5-6; Illinois Commerce Commission Comments at 13.